ENGINEERING STATEMENT
ON BEHALF OF
KTVU PARTNERSHIP
LICENSEE OF
KTVU-DT, OAKLAND, CALIFORNIA
COMMENTS ON THE
PETITION FOR DECLARATORY RULING
BY QUALCOMM INCORPORATED

MARCH 2005

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 8th day of March, 2005.

CAROLYN L. LYONS NOTARY PUBLIC DISTRICT OF COLUMBIA

Notary Public

My Commission Expires: 2/28/2008

Pursuant to employment by KTVU Partnership, licensee of television station KTVU(TV) and KTVU-DT, this engineering statement accompanies the comments on the Petition for Declaratory Ruling by Qualcomm Incorporated ("Qualcomm"). Qualcomm in its Petition for Declaratory Ruling ("Petition") make several requests which are predicated on the method of determining protection to incumbent broadcasters by OET Bulletin No. 69 as opposed to those criteria now specified under Section 27.60 of the FCC Rules.

KTVU(TV) operates on NTSC Channel 2 to Oakland, California, and was assigned DTV Channel 56 in MM Docket 87-286[1]. Further, KTVU-DT has a licensed operation with 1000 kW directional at an HAAT of 433 meters. Basically in the proceeding, MB Docket No. 03-15,[2] KTVU(TV) is considered to have two out-of-core channels.

The Federal Communications Commission ("Commission") in GN Docket No. 01-74 adopted a *Report and Order*[3] on January 18, 2002. GN Docket No. 01-74 among other criteria defined the band plan and geographic area licensing approach for the lower 700 MHz band. Qualcomm seeks specific relief for Block D (Channel 55) from the requirements of Section 27.60 of the FCC Rules by permitting:

- OET-69 as an acceptable engineering methodology
- de minimis standard to measure unacceptable interference
- A rebuttal presumption and streamlined processing procedure

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[1] "In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket 87-286, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order (FCC 98-24), 2/12/98, DTV Table of Allotments, Appendix B.

[2] *Report and Order, Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, MB Docket No. 03-15, RM-9832, Released September 17, 2004.

[3] "In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)", GN Docket 01-74, Report and Order (FCC 01-364), 1/18/02.

The Commission in Paragraph 38 of the *Report and Order* discussed in detail the difficulty to accommodate a second digital channel for all broadcasters within the spectrum that is occupied by Channels 2 through 51. In fact, the Commission stated,

> "The degree of incumbency in the Lower 700 MHz Band – consisting of both digital and analog broadcasters – is likely to make it far more difficult for new services to operate in this band, particularly in major metropolitan markets, prior to the end of the transition."

It is assumed Qualcomm proposes as shown in Exhibit E-1 to establish several transmitter sites inside the predicted 41 dBu contour of the KTVU-DT service area. This is not consistent with the language and intent of the *Report and Order* which in Paragraph 38 the Commission further stated,

> "We emphasize that we have an obligation to fully protect incumbent full-power analog and digital broadcasters during the transition period, and adopt rules that support this core value."

In the Petition, Qualcomm gives no engineering justification for its proposed use of OET-69. The *Report and Order* adopted January 18, 2002, and the subsequent *Memorandum, Opinion and Order*[4] adopted June 14, 2002, provides no discussion of OET Bulletin 69, therefore, the Qualcomm Petition's initial premise is unwarranted and the applicability of OET Bulletin 69 is speculation.

The Qualcomm premise that the necessary protection can be rendered by locating a number of 50 kW operations inside a predicted 41 dBu contour cannot adequately determined through the use of OET Bulletin 69. There are a number of factors included in OET Bulletin 69 that is tailored to meet a specific need for the DTV transition. That need is to have a administratively convenient mechanism by which the Commission can use for assignment of facilities between broadcast operations. Bulletin OET-69 has a number of special features that

[4]"In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)", GN Docket 01-74, Memorandum, Opinion and Order (FCC 02-185), 6/14/02.

make it a unique application between two or more broadcast operations that are not applicable to other non-broadcast services as envisioned by the Qualcomm Petition. They are:

- Receive-antenna directivity
- Does not recognize service beyond the noise-limited contour
- D/U ratios only are applicable to weak signal, i. e., periphery of the broadcast contour

KTVU-DT is located in the Fifth Ranked Market based on Nielsen DMA information contained in the *Television and Cable Factbook* dated 2004 published by Warren Communications News. KTVU-DT has an authorized service area population of 6,107,182 but that still leaves 8% of its analog area unserved (see DTV Table of Allotments). Under Qualcomm's proposal, another 2%--some 120,000 persons--would lose service as well. KTVU-DT is also located in a geographic area subject to dynamic and abrupt weather patterns and is located in an area with a significant bay water area with irregular land area surrounded by mountainous terrain.

Accordingly, several important considerations are necessary in order to evaluate operations as proposed by Qualcomm which would not be addressed in an OET Bulletin 69 analysis.

- Variations in path also can introduce variability in the signal due varying atmospheric conditions notable in the San Francisco Bay area not included in OET Bulletin 69.
- Variations in path also can introduce in heavily built up metropolitan areas actual path differences due to building and other manmade obstructions not included in OET Bulletin 69.

- Variations in signal as the result of operational changes of such as reduced power operation due to equipment failure or to satisfy requirements directed by Section 1.1307 of the FCC Rules.
- Changes due to placement of an experimental DT booster as permitted by FCC Rules.
- Variation of radiation patterns which result from side-mounting an antenna on a tower.
- Changes due to changes in the FCC Rules such as the implementation of distributed transmission technologies.[5]
- Operational changes due to change of transmitting antenna, its location on the tower and/or its orientation.

In addition, KTVU-DT submits:

- KTVU-DT certified on FCC Form 381 that it will operate pursuant to its DTV construction permit (FCC File No. BPCDT-20040312AGG). As specified in the construction, Table I released December 21, 2004, the population for this construction permit is 6,107,182 persons (net of authorized NTSC and DTV interference). Therefore, two percent of this population value is a minimum of 122,144 persons.
- It is expected due to the features that will be offered will require significant higher reliability than for cell service that will probably be required. This reliability can likely only be achieved by an increased level of signal strength not fully taken into account in the OET Bulletin 69 methodology.

[5]See Paragraph 174 entitled, "Distributed Transmission Technologies", from Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, MB Docket No. 03-15, RM-9832, adopted August 4, 2004.

Further, KTVU-DT cannot place reliance that its full digital signal will be carried on cable as evidenced by the decision by the Commission on February 10, 2005,[6] and therefore, needs in order to be competitive to place full reliance on its over-the-air broadcast signal.

Conclusion

The Qualcomm Petition is based on wishful thinking and for the engineering reasons stated above should be dismissed.

[6]See FCC Public Notice entitled, "FCC Resolves Dual and Multicast Carriage Issues".

COHEN, DIPPELL AND EVERIST, P.C. Consulting Engineers Washington, D.C.

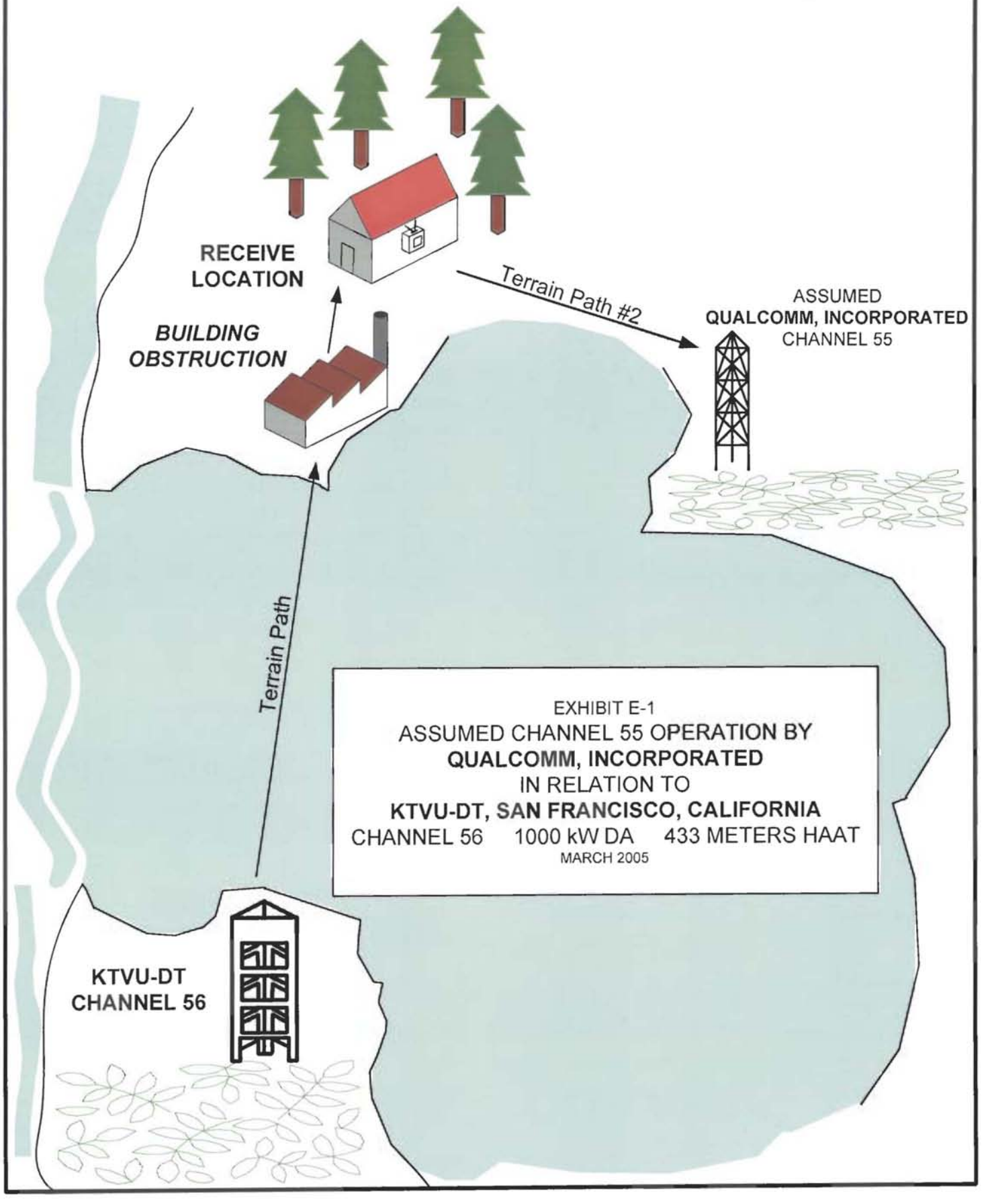

EXHIBIT E-1
ASSUMED CHANNEL 55 OPERATION BY
QUALCOMM, INCORPORATED
IN RELATION TO
KTVU-DT, SAN FRANCISCO, CALIFORNIA
CHANNEL 56 1000 kW DA 433 METERS HAAT
MARCH 2005